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Contents

1. Introduction

What can the EU do to stimulate public authorities and governmental institutions to adopt an environmentally sound purchasing behaviour? That was the central question of Work Package 11 of the 'RELIEF' project[1]. The present paper reports on some of the findings of this Work Package. It aims at providing policy recommendations to stimulate the 'greening' of public procurement in the European Union. These recommendations are based upon an analysis of existing policies (legislation, policy documents, agreements etc.). The analysis focuses on the question to what extent these policies stimulate or obstruct the greening of public procurement by public authorities in the EU, the opportunities and potential of which have been assessed in earlier stages of the RELIEF project.

Box 1. Relevant findings from earlier stages of the RELIEF project

Large untapped potential: The project results demonstrate how powerful a tool GPP can be in achieving tangible environmental improvement. As an indication, if all European public authorities were to switch to 100% green electricity, this would achieve 18% of the CO_2 reductions to EU has committed to in the Kyoto protocol. This potential, however, still remains to a large extent untapped.

Simplification: For most products, there are relatively few environmentally *significant* specifications. Consequently, it is possible to draw up simple guidelines with between one and three *key criteria* to ensure that the most important environmental factors are dealt with without involving a great deal of intensive work.

Priority product groups: A number of product groups have been identified which appear to be particularly promising candidates for GPP, due to their large environmental relief potential and their relevance to public authorities.

These include: energy; IT equipment; food; buildings; cleaning equipment; and buses and trams.

Political commitment: The RELIEF work has made clear that purchasers, working under severe time and financial constraints, are often unwilling to invest effort in pursuing an innovative strategy where they would receive little recognition. Some form of political commitment by local authorities to implementing a programme of GPP, setting specific targets, would provide the necessary spur to action.

Scope for broadening: There appears to be ample scope for a wider application of GPP, not only in terms of involving a larger number of public authorities and product groups, but also by way of extending the criteria used. By including non-environmental considerations (e.g. labour conditions; equity) a development towards 'Sustainable Public Procurement' can be envisaged.

This report deals with product policy.[2] In Chapter 2, the main lines of relevant EU policy are summarised and the parts that are important for public procurement are scrutinised. Chapter 3 assesses these policies, taking into account the findings from earlier stages of the RELIEF project. Chapter 4 presents suggestions for improvement, leaning upon findings of the previous stages of the RELIEF project (see Box 1) and focussing on options, which would give greener public procurement (GPP) a more binding character. The pos-

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1 More information on the 'RELIEF' project can be found at www.iclei.org/ecoprocura/relief.

2 Two other policy areas (internal market and foreign trade policy, and urban environmental policy), are dealt with in separate papers. See Oosterhuis (2003) and Clement (2003).

sible effectiveness and other impacts of these proposals are assessed. Chapter 5 deals with some additional lines of policy. The report concludes with Chapter 6, summarizing the finding and presenting recommendations for policy actions, both in the short term (up to 2005) and the medium to long term (beyond 2005).

The recommendations in this report are primarily directed to decision makers at the EU level: the Commission, the Parliament and the Council, but they may be of interest to other stakeholders as well. They have been discussed within the RELIEF project team. External experts have provided valuable comments and suggestions as well. The final responsibility for the present text, however, lies with the author of this report.

2. Existing EU policies

2.1 An early initiative: recycled paper

Already in 1981, the European Council issued a Recommendation concerning the re-use of waste paper and the use of recycled paper (European Council, 1981). One of the elements of the Recommendation was the advice to Member States and Community institutions to encourage the use of recycled and recyclable paper and board, especially in Community institutions and national administrations, public bodies and those national official services which can set an example.

Initially, the impact of this Recommendation seems to have been limited. By 1992, only 19% of the paper consumption in the European Commission consisted of recycled paper (Anon., 1994). However, by 2001 this figure had increased to 80% (Frommer, 2001). Furthermore, it is reported that for instance in Spain the Recommendation has been a support or even the reason for public authorities to purchase recycled paper (Van der Grijp, 1995).

2.2 The 6th Environmental Action Programme

The EC's Sixth Environmental Action Programme, entitled 'Environment 2010: Our future, Our choice' was presented by the European Commission in January 2001 (European Commission, 2001a). It proposes five priority avenues of strategic action:

1. Improving the implementation of existing legislation;
2. Integrating environmental concerns into other policies;
3. Encouraging the market to work for the environment;
4. Empowering citizens and changing behaviour;
5. Greening land-use planning and management decisions.

Public procurement is dealt with under the third heading. The actions announced here were further elaborated upon in the Green Paper on Integrated Product Policy.

2.3 The Green Paper on Integrated Product Policy

In February 2001, the European Commission presented its 'Green Paper on Integrated Product Policy' (European Commission, 2001b). The central element of this report is the question how the development of greener products and their uptake by consumers can be achieved most efficiently. Integrated product policy (IPP) is defined as an approach, which seeks to reduce the life cycle environmental impacts of products, from the mining of raw materials to production, distribution, use and waste management. Instruments, which internalise the external (environmental) costs of products during their life cycle are seen as the potentially most effective ones. However, as complete internalisation of external costs is not always easy to implement, supplementary action is needed, in particular by 'greening demand'. In addition to the demand by private consumers, an important 'kick off effect' is expected from public procurement.

The Green Paper announced the following actions in the area of public procurement:

- Looking at the feasibility of promoting green purchasing by introducing an obligation to carry out, before purchasing, an assessment of the environmental impact of the different alternatives available that meet the needs of the contracting authorities[3];
- The adoption of an Interpretative Communication on Public Procurement and the Environment;
- A handbook and/or a communication on Green Public Procurement with examples on how to draw up green calls for tenders in conformity with EU law. According to Frommer (2001), this Handbook would be written by summer 2002;
- Co-ordination and facilitation of an information exchange concerning eco-product criteria for public authorities, based on existing initiatives in Member States and on existing EU eco-label criteria. Frommer (2001) announced that DG Environment intended to set up an information database of about 100 product groups, to be published on a website;
- Taking the lead in the Commission's own procurement activities, by giving preference (within the framework of public procurement law) to products which fulfil the requirements of the EU ecolabel criteria, and by registering under the EMAS scheme (and encouraging other public authorities to follow this example). The experiences of this process will be published and made available to Member States and local authorities.

2.4 Guidelines on the use of eco-label criteria

In November 2001, the Commission issued 'Guidelines on Greening Public Procurement by using the European Eco-label Criteria' (European Commission, 2001c). These are primarily intended for use by the members of the EU Eco-Labelling Board, to inform procurement officers about possibilities of 'greening' their procurement via the European eco-label and its criteria, while respecting European legislation related to public procurement. In addition to recommending the use of EU eco-label criteria in procurement decisions, the note stresses the importance of doing this already in the *technical specifications* of the call for tenders, possibly making use of *variants* to obtain some flexibility. It states that the possibilities to use eco-label criteria as *award criteria* are much more limited (see also Oosterhuis, 2003).

2.5 European Climate Change Programme

In June 2000, the Commission launched the European Climate Change Programme (ECCP). Within the framework of the ECCP, a number of working groups were set up to consider and give recommendations on the most important options for reducing greenhouse gas emissions cost-effectively. In June 2001, the Commission published the findings of these working groups (ECCP, 2001). Energy-efficient public procurement was among the 42 possible measures that were identified (costing less than € 20 per tonne

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[3] This action was already mentioned in the 6th Environment Action Programme, but it is not included in the Summary of the main instruments and actions in Annex III of the Green Paper.

CO_2 equivalent reduction). The proposal envisages not only the strengthening of voluntary initiatives, but also a Directive that would establish public procurement principles. The working group estimated that, with compliance by 2005, savings of 25 to 40 Mt CO_2 per year would be possible by 2010.

In its Legislative and Work Programme 2003[4] the Commission announced a Communication and a proposal for a Directive on the public purchasing of energy efficient and clean vehicles. This would include an obligation for public authorities to ensure that comprehensive information and service on purchasing clean vehicles and alternative fuels are provided to public procurement offices. Public authorities would also be obliged to set up purchasing strategies on a central and local level ensuring that the evaluation of tenders on vehicles and fuels to be used by public authorities and public services takes into account the most advantageous tender, both in economic and environmental terms, and not the lowest purchasing price.

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4 COM(2002) 590 (02). The proposal referred to here can be found in the 'list of legislative proposals and non-legislative acts corresponding to the political priorities for 2003' (http://europa.eu.int/eur-lex/en/com/cnc/2002/act0590en02/2.pdf) under reference 2003/TREN/48.

3. Opportunities and limitations of existing policies

In this chapter, the existing policies as identified in Chapter 1 will be assessed against the background of the findings from earlier stages of the RELIEF project.

The scope of product policy in the EU is still rather limited. Until now, the European eco-label and some energy labels (e.g. for cars and white goods) are the main 'official' instruments developed at EU level to distinguish 'greener' products from 'ordinary' ones.[5] They cover only a small number of product groups (mainly consumer products). Moreover, the RELIEF project has shown that eco-labelling and energy labelling criteria do not always reflect the highest environmental and energy efficiency standards. Therefore, current labelling systems have only limited relevance for public purchasing.

The proposals presented in the Green Paper on Integrated Product Policy contain the promise of substantially widening the scope. With respect to public procurement, the Green Paper provides for actions that would stimulate both the greening of public purchasing in the Member States and by the EU's own institutions. In particular, the proposed creation of a Handbook and an information database could contribute to meeting the need for more and better information that has been identified as a major bottleneck in earlier stages of the RELIEF project.

However, the RELIEF findings also show that purchasing authorities are not always able to determine the extent to which their greener procurement can help the environment. They do not only have to be informed about the availability of 'green' products, but also about the size of environmental improvement that can be achieved by different procurement options. This kind of information appears to be difficult to produce; yet it seems to be indispensable in order to make the right choices. This is especially true if the 'green' alternative involves a higher cost than the 'standard' alternative. Moreover, it would be conducive to better priority setting, preventing the purchasing authorities from focusing on product groups with a relatively small environmental impact (such as office materials), while neglecting others (e.g. buildings, energy) that might have a much larger relief potential. Thus, the need for more and better information on the *cost-effectiveness* of 'green' purchasing options seems obvious.

Improving the quality and availability of such information is a *necessary* condition for greening public procurement. However, it will not always be a *sufficient* condition, as long as a large part of the public purchasing community remains unaware of, or uninterested in, the opportunities they have to contribute to environmental improvement through their purchasing decisions. Therefore, additional instruments may be needed to expand the number of public authorities and officials involved. Obviously, voluntary measures (awareness raising, agreements, commitments) are to be preferred. However,

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[5] Obviously, a plethora of other environmental labelling systems has been developed by private initiatives.

obligations might be needed in order to ensure participation by the largest possible number of purchasing authorities.[6]

Finally, stimulating greener public procurement within the framework of an Integrated Product Policy implies that one should not only apply instruments targeting the purchasing authorities, but also address other parts of the products' and services' life cycles.

The next chapter will look at available options regarding the introduction of more binding elements in EU policy. In Chapter 4, we will discuss some additional policies that could be pursued.

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[6] The Commission seems to acknowledge this need, as the initiative for a Directive on energy efficient public procurement (see above) shows. Nevertheless, one might argue that, according to the subsidiarity principle, the decision to 'buy green' should be left to the purchasing authorities themselves and should not be imposed upon them by the EU. However, green public procurement will only be effective if it is not restricted to a few individual municipalities which happen to be prepared to stick their neck out. A 'critical mass' is needed to achieve market transformation, and this can only be achieved by collective action. Moreover, many of the environmental problems that can be addressed by green public procurement have a transboundary character, which justifies supra-national action. A further argument for EU intervention is the fact that expanding the demand for 'green' products clearly improves the functioning of the internal market - a topic that is clearly within EU competence. Finally, the actions considered in the next Chapter do not restrict the freedom for member states and local authorities unnecessarily. The authority for decisions that can better be taken at those levels remains there.

4. Options for improvement: 'making green public procurement obligatory'

4.1 Introduction

In Chapter 3, it has been stated that the Commission's proposals on greening public procurement (as presented in the IPP Green Paper) provide a basis for improvement, but may not be sufficient to fully (or optimally) exploit the potential of green public procurement in the EU. One reason for this is that these proposals are unlikely to stimulate green procurement among those public authorities in which awareness of, or interest in this instrument is lacking. To achieve this, green public procurement could be given a more obligatory character. There are several ways to do so, including:

- A general obligation to take environmental aspects into account when preparing procurement contracts;
- An obligation to perform an 'environmental impact assessment' of public procurement decisions;
- The mandatory use of ecolabel requirements and other certifiable 'green' criteria as minimum standards in the technical specifications;
- An obligation for the purchasing agency to meet certain quantitative targets, e.g. a minimum percentage of recycled products or of 'clean' vehicles;
- A system of 'price preferences', obliging public purchasers to accept bids at a higher price if their environmental performance is better than the lowest price offer;
- A system of 'eco-points', giving a higher weight to environmentally sound products or to suppliers with a good environmental profile;
- The inclusion of life cycle costs and external costs in the calculation of the 'most economically advantageous bid'.

Each of these options will be discussed in the following. Attention will be paid to examples of its use in practice, its advantages and disadvantages, as well as to the question whether (and if so, how) the option could be applied at the EU level. The chapter ends with a summary and some conclusions.

4.2 General obligations to take account of environmental aspects

Existing examples:

- In Germany, federal institutions are required to procure products that avoid or reduce waste, use secondary materials, have a greater durability and are either recyclable or can be repaired (OECD, 2000).
- In the German state of Sachsen-Anhalt, public authorities must purchase products that display indications of durability, repairability and reusability. Also preference is given to products that are easier to dispose of, or that have been produced from residues or waste (OECD, 2000).
- In the USA, former President Clinton's Executive Order 13101 requires agencies to implement cost-effective procurement preference programs favouring the purchase of environmentally preferable products and services. EPA has developed a set of guiding principles to provide further meaning to the concept of 'environmentally preferable' purchasing (see http://www.epa.gov/opptintr/epp/about/about.htm). Since 1997, the Federal Acquisition Regulations require consideration of environmental factors in every aspect of federal contracts (OECD, 2000).
- The Swedish Prime Minister announced in the Statement of Government on 19 September 2000 that environmental requirements shall apply to all public procurement.
- Austria's waste management law of 1990 requires that federal government procure solely products causing little impact on the environment and little waste. The 1993 procurement law points out that in the tendering process environmental issues have to be considered. Also eight out of nine provinces of Austria have included this (or a similar) requirement in their own procurement laws (Lackner, 2001).
- In Denmark, a circular was published in 1995 pointing out that all government institutions in the purchasing process of goods and services have to include environmental aspects at the same level as for example price and quality (Schmidt, 2001).
- Hungary's 1995 law on public procurement requires that, all other aspects being equal, preference be given to environmentally friendly products (Eri, 2001).
- A recent revision of the Norwegian Act on Public Procurement requires government agencies to take environmental considerations into account (OECD, 2001).

This option has the advantage of leaving substantial freedom to the public purchasers. To a large extent they can decide for themselves how this general obligation is operationalised, how much attention is being paid to the environmental features of the products and services they buy, and how different environmental aspects are weighted against each other and against other attributes (including costs).

A disadvantage of this option is its lack of clear-cut, measurable targets and criteria. It does not provide the purchasing agents with a clue as to how many efforts are expected from them. Neither does it allow the measurement of its results.

The cost-effectiveness is uncertain. There may be some resource costs involved in setting up guidelines, procedures etc., and in reporting.

Article 6 of the EC Treaty states that environmental protection requirements must be integrated into the definition and implementation of other EC policies, including the internal market policy. A logical consequence would be to introduce in the public procurement Directive(s) an obligation for public authorities to take environmental considerations into account when drawing up a tender for a contract. A suitable opportunity to do so might be to amend Article 2 of the proposal for a new public procurement Directive[7], which in its current version only refers to the principles of equality of treatment, transparency and non-discrimination.

4.3 'Environmental impact assessments' of procurement decisions

In actual practice, no existing examples were found of obligations for public authorities to carry out, before purchasing, an assessment of the environmental impact of the different alternatives available that meet their needs. As stated above, the Commission suggested to look at the feasibility of this instrument in its Green Paper on IPP[8].

A clear advantage of such an obligation would be the awareness raising impact on public purchasers. Each time they take a purchasing decision, they would have to consider its environmental consequences. This would not only imply the comparison of different types of a particular good or service, but also the option *not* to buy it, fulfilling the need in some other way instead (e.g. by extending the lifetime of an existing good, by purchasing services instead of products, or by taking organisational or efficiency measures). It would also pertain to *all* possible environmental impacts, thus avoiding a one-sided emphasis on one particular aspect (e.g. energy efficiency). At the same time, an environmental impact assessment for public procurement offers a considerable amount of flexibility and freedom. It does not affect the range of options available to the purchasers, it only requires them to consider all options and their environmental impacts.

Obviously, the latter advantage can also turn into a disadvantage for the environment. Just like in the existing environmental impact assessment procedures for projects (mandatory under EC Directives 85/337 and 97/11), there is no certainty that the attention given to environmental aspects automatically leads to environmentally benign choices. It will still be possible to choose an environmentally harmful option, although the public disclosure of its impacts will probably create political pressure not to do so.

It seems doubtful whether a general application of this instrument would be cost-effective. Whereas the environmental benefits are uncertain, the cost of drawing up a (formal) environmental impact assessment (EIA) may be quite high, even if standardised information (such as LCAs) is readily available. It may therefore only be a realistic option for purchasing decisions with potentially large environmental consequences.[9]

Specific legislation would have to be introduced to make EIAs of procurement decisions obligatory throughout the EU. A first step could be to investigate whether the existing EIA legislation and procedures can be expanded so as to include certain public procure-

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7 COM(2000) 275 final; see Section 2.1.

8 However, according to Erdmenger (2002) this idea has already been dropped as too costly.

9 It should be noted that for several kinds of such decisions EIAs are already required under current EU legislation (e.g. investments in road infrastructure).

ment decisions with potentially major environmental impacts, which are currently not yet covered (e.g. large public buildings).

4.4 The mandatory use of ecolabel criteria and other green product specifications

Existing examples:

- Under the USA's Resource Conservation and Recovery Act (RCRA, Section 6002), the Environmental Protection Agency (EPA) issues 'Comprehensive Procurement Guidelines', designating products that are or can be made with recovered materials and to recommend practices for buying these products. Once a product is designated, federal agencies (and lower level public agencies using federal funds) are required to purchase it with the highest recovered material content level practicable. To date, EPA has designated 54 products in 8 categories (construction products; landscaping products; non-paper office products; paper and paper products; park and recreation products; transportation products; vehicular products; miscellaneous products). See http://www.epa.gov/cpg/products.htm.
- Former President Clinton's Executive Order 12845 requires all heads of federal agencies to ensure that all acquisitions of microcomputers, including personal computers, monitors, and printers, meet "EPA Energy Star" requirements for energy efficiency. The EU (participating in the Energy Star programme since 2001) has included a similar provision in its Regulation 2422/2001/EC.
- The EU Ecolabel Regulation (1980/2000/EC) states in its Article 10 that 'in order to encourage the use of Eco-labelled products the Commission and other institutions of the Community, as well as other public authorities at national level should, without prejudice to Community law, set an example when specifying their requirements for products'.
- In Germany, the 2002 coalition deal between Social Democrats and Greens agreed a target for all timber purchased by the federal government to be certified by the Forest Stewardship Council

(FSC) within four years (ENDS, 2003).

Eco-labelling systems and other 'official' environmental certification schemes have the advantage of using objective and transparent criteria. These criteria can be literally copied in the technical specifications of the call for tenders. Compliance with the criteria is easily checked in those cases where the product actually carries the label.[10] Furthermore, they do not only testify to the environmental superiority of the labelled product, but as a rule they also contain requirements regarding its quality and performance.

An obvious disadvantage (or rather: limitation) of this option is that it can only be applied to those products and services for which eco-labelling or other 'official' environmentally relevant criteria have been developed. Therefore, the value of this instrument would be greater if the scope of eco-labelling systems were expanded. In particular, more emphasis should be placed on product categories that are of interest to professional purchasers in the public sector, such as building materials and specialist equipment (e.g.

[10] However, it is not allowed to require the product or service to be actually labelled. If it does not have a label, the purchasing agents will have to check themselves whether it meets the criteria.

for the maintenance of public space), as well as on services. Nevertheless, the application of labelling criteria will always remain limited to standardised products and services. In case of unique or tailor-made purchases they are only suitable for specific components or inputs.

Furthermore, this option does not take into account cost-benefit considerations. If an (eco-)labelled (or equivalent) alternative is available, the purchasing authorities would be obliged to buy it, regardless of the cost. In cases where the environmental improvement in comparison with the 'ordinary' alternative is only marginal, or where the price difference is large, this may result in public spending with very low cost-effectiveness.

An obligation to use labelling criteria in tender specifications could be included in the proposed new public procurement Directive. It could be given the form of a general obligation to use these criteria in all contracts regarding products and services for which an EU ecolabel exists, with possible exemptions if the purchasing authority can show that the use of these criteria would have serious disadvantages.

4.5 Obligations to meet specific targets

Existing examples:

- In France, a strong impetus in the procurement of environmentally preferable transport means was provided by the legislation on air quality, which introduced the obligation for public transport providers to reach for at least 10 per cent of the vehicle park to run on cleaner energies (OECD, 2000).
- In the USA, the 1992 Energy Policy Act requires all federal agencies with light duty fleet vehicles in major metropolitan areas to acquire at least 75 percent alternative fuel vehicles each year instead of traditional petroleum fuelled cars and trucks. In practice, this target is hardly met by any federal agency. Even the EPA purchased just 35 percent alternative fuel vehicles in 1998 (ENS, 2002).
- In the Austrian capital Vienna, all public facilities (in particular hospitals, schools, day care centres, old-age homes and nursing homes) have to increase their share of organically grown food to 30% by 2005 (Siemens, 2001).
- Japan's 1995 'Action Plan for Greening Government Operations', which includes the procurement and use of environmentally preferable goods and services, determines specific quantitative targets that governments must meet by the year 2000. These targets entail, among others, reductions in virgin pulp and paper consumption, energy and water use (OECD, 1999).

An obvious advantage of setting a specific target to be met by public procurement is that it can easily be verified whether it has been achieved or not. The target needs to be clear and unambiguous and should preferably be set at (or translated to) the level of individual decision-making entities. This will enable them to know exactly what is expected from them and to enhance their efforts to meet the target if necessary.

Quantitative targets seem to be especially suitable to stimulate the market penetration of innovative, environmentally superior products. By creating a 'pioneer market' they can give the new product the chance to benefit from scale and learning effects, thus providing a starting point for large-scale production.

At the same time, quantitative target setting may involve various problems. First of all, the target needs to be realistic. It should be neither so lax that it does not present a challenge, nor so ambitious that no one will take it seriously. Striking the right balance will be problematic, especially if long-term objectives are involved and the uncertainty about feasibility is high. Furthermore, it is questionable whether credible enforcement of the target is possible. Persuasion may be too 'soft' as an instrument, but (financial) sanctions in case of non-compliance may be perceived as too severe.

Fixed targets are rigid. They do not take into account differences between public purchasing entities and do not encourage them to exceed the targets. Moreover, technological development may render them outdated. Therefore, the cost-effectiveness of this option is likely to be low.

Introducing obligatory targets for green public procurement in EU law would probably only be feasible on a case-by-case basis, depending on the type of product or service involved. For example, the Directive on electricity from renewable sources (2001/77/EC) sets (indicative) targets for the share of electricity from renewables for the EU as a whole and for the Member States to be met in 2010. This Directive could be amended with a stipulation that the share of renewable electricity purchased by public authorities in the EU should at least be equal to the national target. It could then be left to the Member States to decide how to achieve this. A similar approach could be followed in the planned Directive on energy efficient procurement (see Chapter 2.1).

4.6 Price preferences

Existing examples:

- In the state of Massachusetts (USA) public tenders may indicate that an environmentally preferable product (EPP) will be considered best value even when the price is greater than that of a non-EPP (recommended not to exceed 10 per cent) (OECD, 2000).
- At least 32 states in the USA have explicit price preferences (typically 5% to 15%) for specific products (Marron, 1997).

Under a system of price preferences, public authorities are obliged (or allowed) to accept an environmentally superior offer, even if the price of this offer is higher than the price of the 'dirty' alternative. Usually, the price difference is limited to a certain maximum percentage.

Price preference systems provide clear guidance to purchasing authorities in terms of the additional money they should (or may) spend on environmentally preferable products and services. From a cost-effectiveness point of view, however, such systems will only make sense if the additional cost is somehow balanced against the environmental gains. Price preferences will therefore not be a suitable instrument for all kinds of public spending. They may be appropriate in case of products with a limited number of (readily observable and measurable) environmental impacts.

If the EU would like to include this instrument in its product policy, it could do so by including a general provision in the Public Procurement Directive(s) that purchasing authorities should apply price preference clauses in their award criteria for specific con-

tracts.[11] The details could be dealt with in separate Commission Decisions, which can easily be adapted to changing circumstances. These details would include, among others, the kinds of goods and services subject to price preference, and possibly also the allowable size of the price preference (preferably to be expressed in relative terms, e.g. euros per tonne of emission avoided). Obviously, in case of durable goods, the term 'price' will not only include the purchasing price but also the operating and maintenance costs, expected lifespan etc.

4.7 Eco-points

Existing example:

- In the state of Massachusetts (USA) points may be awarded to bidders that use environmentally preferable products, services or engage in environmentally preferable practices as part of conducting their business (OECD, 2000).

'Eco-points' could be used as weighting factors in the selection of suppliers or in the choice of the product or service offered. Eco-points may constitute a transparent and objective way of incorporating environmental considerations in procurement decisions. Unlike a rigid 'pass or fail' system, an eco-point system allows for flexibility by enabling the purchasing authorities to trade off environmental criteria against other aspects, such as quality and costs. This also makes it a potentially cost-effective instrument. Obviously, in order to be non-discriminatory, the criteria to be applied and the weights to be used should be specified in advance and should not be chosen arbitrarily in the course of the procurement process.

EU wide mandatory use of eco-points in all public purchasing would probably involve too much bureaucracy. Instead, the new public procurement Directive (cf. Chapter 2.1) could offer the *option* of using an eco-points system, possibly specifying a number of conditions and limitations.

[11] Another possible way of implementing a price preference system would be to stipulate technical specifications which allow for the use of variants with a better environmental performance.

4.8 The inclusion of life cycle costs and external costs

Existing examples:

- In the UK, a 'Green Guide for Buyers' has been published, aiming at 'value for money' in public procurement. In order to assist buyers in determining whether it is cost effective to invest in a more expensive product initially so as to reduce costs in the long run, the Green Guide identifies the following elements as components of 'whole life costing': direct running costs; indirect costs (e.g. additional costs of cooling due to energy inefficient IT equipment); administration costs (e.g. additional controls, handling and disposal for hazardous products); 'spending to save' (e.g. investing in higher levels of insulation to save energy and thus money in the future); recyclability; costs of disposal (OECD, 2000; see also: http://www.sustainabledevelopment.gov.uk/sdig/improving/partf/circulars/022000/index.htm).
- Switzerland is developing a conversion factor for pricing energy costs, including externalities, in procurement options (OECD, 1999).

Obliging public purchasers to take the total life cycle of a product into account when calculating the costs of a product or service has the advantage of being a typical 'win-win' option. It saves the purchasing authorities money (at least in the long term) and it contributes to environmental improvement. It is particularly suited to do away with existing systems, which do not allow purchasers to take indirect, or future costs into account and which thus create a bias in favour of solutions with low current expenses.

The inclusion of external (environmental) costs would constitute a step further ahead. The advantage of this option would be that environmental considerations are expressed in the same unit as the 'ordinary' cost considerations, i.e. money. Obviously, there are also serious limitations to this approach, as the identification and valuation of external effects is presently still a controversial issue and the limited amount of existing estimates of external costs (such as those made in the 'ExternE' projects) are characterised by large uncertainties.

The cost-effectiveness of both options is (almost by definition) high.

Taking full life cycle costs into account when determining the 'most economically advantageous tender' is already possible under current EU public procurement law. However, the same is, according to the European Commission, not true for external costs (except when they are borne directly by the purchaser)[12]. It seems unlikely that it will be possible in the near future to design a comprehensive and uncontroversial system of including external costs in the award criteria of public contracts. On the other hand, a requirement to address full life cycle costs when evaluating tenders could easily be included in the new Public Procurement Directive.

4.9 Summary and conclusions

Table 4.1 summarises the options that have been discussed above.

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[12] European Commission, 2001c, p. 20.

Table 4.1 Summary of policy options in the area of 'obligatory green public procurement'.

Option	Advantages	Disadvantages	Cost-effectiveness	Implementation
general obligation to take environmental aspects into account	freedom for purchasing authority	no measurable targets	uncertain	amending art. 2 of new Public Procurement (PP) Directive
obligation to perform an 'environmental impact assessment'	- awareness raising - addresses all environmental impacts - leaves freedom and flexibility	no guarantee that environmentally preferable choices will be made	doubtful	amending existing EIA legislation
mandatory use of ecolabel requirements and other 'green' criteria	objective and transparent criteria	limited to products and services for which labelling system exists	uncertain	amending the PP Directive
obligation to meet certain quantitative targets	- provides certainty on what to achieve - especially suitable for innovative products	striking a balance between realism and ambition may be problematic	uncertain	case by case, e.g. in Renewable Energy Directive
system of 'price preferences'	clear guidance for purchasers	limited applicability	low, unless specifically addressed	general provision in PP Directive; details in Commission Decisions
system of 'eco-points'	flexibility (allows trade-offs between environmental and other aspects)	too bureaucratic if mandatory	potentially cost-effective	could be introduced as an option in PP Directive
inclusion of life cycle costs and external costs	profitable (at least for society at large)	uncertainty and lack of information on external costs	high	addressing full life cycle costs could be required in PP Directive

What strikes immediately is the uncertainty about the cost-effectiveness of many options. This is of course a general feature of mandatory systems, which do not take specific circumstances into account. Therefore, it seems advisable to proceed in this direc-

tion with some caution and to pay due attention to the cost-effectiveness of the specific measures taken. Nevertheless, most of the identified options seem to contain at least some elements, which may justify their introduction. Initially, this may be done on an experimental and limited basis, for instance by applying them to particular product groups where cost-effectiveness is likely to be high (such as energy efficient equipment).

In the next chapter, we will pay attention to some additional instruments, which could enhance the (cost-)effectiveness of the strategies that were discussed in the present chapter.

5. Other options for improvement

5.1 Improving information on (cost-)effectiveness

Current systems giving information on the environmental features of products, such as ecolabels, generally do not provide guidance on the size of environmental improvement that can be achieved by choosing a particular option. Even if the documentation supporting the claim of environmental superiority of a certain product contains all relevant information, purchasing agents will usually not be able to assess the cost-effectiveness of the additional euro spent on that product[13], especially when several environmental impacts are involved.

It seems unlikely that it will be possible to obtain reliable information to determine the environmental impact (and therefore the cost-effectiveness) of all GPP decisions (this is confirmed by the findings of earlier stages in the RELIEF project). However, it would be desirable that all information that is available should be used.

To this end, the EU's information sources on GPP (such as the Handbook and the information database that are currently being developed) should give due attention to the issue of environmental impact and cost-effectiveness. It could make a clear distinction between different types of situations, e.g.:

1. Situations where the environmental benefits of 'buying green' are reasonably certain and independent from assumptions concerning specific circumstances (e.g. relating to the production process and the way the product is used: lifetime, use intensity etc.). In such cases, the cost-effectiveness of buying the 'greener' alternative can be relatively easily determined and if this cost-effectiveness is high[14], buying this alternative can be recommended or even made obligatory.
2. Situations where the environmental benefits of 'buying green' are uncertain and/or dependent on assumptions concerning specific circumstances. For such situations, additional decision support tools may be needed to enable the purchasing authorities to determine whether or not buying the 'greener' alternative is advisable in their particular case. Such tools could also take into account the possible (dis)advantages of the 'greener' alternative in terms of performance, aesthetic quality, convenience etc.

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[13] It is assumed here that the procurement of the greener alternative involves higher costs. Obviously, if this is not the case, buying the greener product will always be advisable (provided that it does not have other disadvantages).

[14] Criteria for acceptable cost-effectiveness could be derived from estimates of external costs, or from the cost per unit of emission reduction in industry when using 'best available techniques'. If several pollutants are involved, the cost has to be attributed to each of them according to some distributive code.

5.2 Experiments, example setting and pilots

The obligatory measures discussed in Chapter 4 could be preceded by voluntary experiments, exemplary and pilot projects, in order to gain experience and get a better picture of their feasibility and resource costs. Examples might include:

- Entering into a voluntary agreement with national governments and members of the Council of European Municipalities and Regions (CEMR) to formulate and implement green purchasing policies (with clear monitoring and reporting requirements);
- The use of the 'key criteria' (as developed in the RELIEF project) by the EU's own institutions in their procurement activities;
- Providing support to initiatives which lead to more information (exchange), expertise and know-how in the area of GPP, such as criteria development, network creation, databases and reports, information dissemination, publicity campaigns etc.

5.3 Addressing other actors in the product chain

In addition to the public purchasing agents themselves, other actors in the product chain can be addressed by product policies promoting greener public procurement as well. *Industry* and *research organisations* could be given incentives to come up with innovative solutions that meet the 'green' demand by public authorities. Such incentives may consist of 'traditional' R&D support, but less conventional instruments could also be taken into consideration. Examples include prizes and awards, as well as (to the extent that competition law allows it[15]) preferential treatment and partnerships between government and industry. Furthermore, for specific product groups additional legislation could be needed to facilitate the distinction between 'green' and 'non-green' products (an example is the 'labelling' of electricity). *Standardisation organisations* might be encouraged to pay more attention to the environmental aspects of their work. This is particularly important given the EU procurement legislation requirement that public tenders should refer to European standards whenever they exist. *Eco-labelling institutions* (now focussing primarily on consumer products) might be asked to cover more products and services that are of particular relevance for public purchasers.

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[15] See separate paper on internal market and foreign trade policy (Oosterhuis, 2003).

6. Conclusions and recommendations

In this report, the scope and limitations for greener public procurement under current EU law and policies in the area of product policy have been assessed. It can be concluded that although present policies and the existing legal framework are quite favourable to greener procurement, there are some bottlenecks and imperfections that need to be redressed so as to exploit the full potential of this instrument. Moreover, the proposed new public procurement Directive does not appear to be an improvement in all respects.

In addition to its current efforts, which are largely based on information provision and voluntary initiatives, the European Commission should introduce some binding elements in order to boost the application of effective and efficient greener public procurement. This should be done with due attention for cost effectiveness (including the resource costs of public authorities).

Promising and feasible options that can be introduced in the *short term* (before 2005) would include:

- A general clause in the new procurement Directive (art. 2), stipulating that environmental considerations should be taken into account when drawing up public tenders (at all levels of government);
- A voluntary agreement with national governments and members of the Council of European Municipalities and Regions (CEMR) to formulate and implement green purchasing policies (with clear monitoring and reporting requirements);
- Due attention for the issue of environmental impact and cost-effectiveness in the Commission's information provision on greener public procurement (such as the envisaged Handbook and the product information database);
- Provisions regarding the exemplary function of public authorities in legislation relating to specific product groups, e.g. in the Directive on renewable energy;
- The mandatory use of ecolabelling criteria (and comparable schemes) for specific product groups for which the general cost-effectiveness of using these criteria has been proven;
- More attention in the EU's ecolabel scheme for product groups that are of particular interest to public authorities;
- A feasibility study on the option of using 'eco-points' in the award criteria of a public contract;
- A requirement to use 'full life cycle costs' when determining the economically most advantageous tender and an investigation of the possibilities to include external costs;
- Incentives to industry for the development of new products and services meeting (latent) 'green demand' by public authorities;
- Legislation for specific product groups, facilitating the distinction between 'green' and 'non-green' options;
- Requirements for the European standardisation organisations to include environmental considerations in their work;

- Exploration of product groups for which particular obligatory instruments could be used (such as mandatory use of ecolabelling criteria, quantitative targets or price preferences).

In the *medium and long term* (2005 and beyond) the following actions could be taken:

- Evaluating the experiences with the short term measures, with a view to possible modifications and/or expansion (e.g. to other product groups);
- Introducing, if found to be feasible, a legal obligation for every public authority in Europe with more than a certain number of employees to establish a green purchasing policy (with monitoring and reporting mechanisms);
- Introducing other obligatory instruments (such as mandatory use of ecolabelling criteria, quantitative targets or price preferences) for those product groups for which this has been found to be feasible and efficient;
- Introducing, if found to be feasible, the option of using 'eco-points' in the award criteria of a public contract; and the requirement to include external costs when determining the economically most advantageous tender;
- Stimulating suppliers of 'greener' products to contribute to the enforcement of the requirement to include environmental considerations in public tenders, by legally challenging procurement decisions where such considerations have been neglected (cf. Barth and Dross, 2003).

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